

**ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
AIR QUALITY CONSTRUCTION PERMIT**

Permit No. 9932-AC013

Issue Date: Final – December 28, 1999

The Department of Environmental Conservation, under the authority of AS 46.03, AS 46.14, 6 AAC 50, 18 AAC 15, and 18 AAC 50, issues this Air Quality Control Construction Permit to:

**Permittee:** Nome Joint Utility System

**Facility:** Snake River Power Plant

**Location:** Nome, Alaska, West 5<sup>th</sup> and West 'K'  
UTM Coordinates Northing 7153.5 km, Easting 479.5 km  
Zone 8

**Owner and Operator:** Nome Joint Utility System  
P.O. Box 70  
Nome, AK 99762

In accordance with AS 46.14.130(a), this permit allows the Permittee to modify the facility in accordance with terms and conditions of this permit. This permit contains terms and conditions necessary to ensure that the Permittee will build and operate the facility in accordance with 18 AAC 50.315(e).

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John M. Stone, P.E., Manager  
Air Permits Program

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Date

## Table of Contents

Section 1.	General Permit Conditions .....	3
Section 2.	Ambient Air Quality Standards and Maximum Allowable Ambient Concentrations .....	5
Section 3.	Best Available Control Technology (BACT) for Oxides of Nitrogen (NO <sub>x</sub> ).....	9
Section 4.	Best Available Control Technology (BACT) for Sulfur Dioxide (SO <sub>2</sub> ) .....	12
Section 5.	Federal New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAPS).....	13
Section 6.	40 CFR 60, Subpart Kb Standard of Performance for Volatile Organic Liquid Storage Vessels.....	14
Section 7.	State Implementation Plan Emission Standards .....	15
Section 8.	General Source Testing and Monitoring Requirements .....	17
Section 9.	General Recordkeeping and Reporting Requirements .....	19
Section 10.	Permitted Source Inventory .....	21
Section 11.	Permit Application Documentation.....	22
Section 12.	Excess Emission Notification Form .....	25
Section 13.	Visible Emission Evaluation Procedures .....	26
Section 14.	Facility Operating Report.....	29

## **Section 1. General Permit Conditions**

1. For purposes of establishing whether or not the Permittee has violated or is in violation of any standard in this permit, nothing in this permit precludes the use of any credible evidence of information relevant to whether the facility would have been in compliance with applicable requirements if the appropriate performance test or procedures had been performed.
2. The Permittee must comply with each permit term and condition. Noncompliance constitutes a violation of AS 46.14, 18 AAC 50, and the Clean Air Act, except those requirements designated as not federally-enforceable, and is grounds for:
  - 2.1 an enforcement action,
  - 2.2 permit termination, revocation and reissuance, or modification in accordance with AS 46.14.280, or
  - 2.3 denial of an operating-permit renewal application.
3. It is not a defense in an enforcement action to claim that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with a permit term or condition.
4. Each permit term and condition is independent of the permit as a whole and remains valid regardless of a challenge to any other part of this permit.
5. Compliance with permit terms and conditions is considered to be compliance with those requirements that are:
  - 5.1 included and specifically identified in the permit, or
  - 5.2 determined in writing in the permit to be inapplicable.
6. The permit may be modified, reopened, revoked and reissued, or terminated for cause. A request by the Permittee for modification, revocation and reissuance, or termination or a notification of planned changes or anticipated noncompliance does not stay any operating permit condition.
7. The permit does not convey any property rights of any sort, nor any exclusive privilege.
8. The Permittee shall allow an officer or employee of the Department or an inspector authorized by the Department, upon presentation of credentials and at reasonable times with the consent of the owner or operator, to:
  - 8.1 enter upon the premises where a source subject to the operating permit is located or where records required by the permit are kept,

- 8.2 have access to and copy any records required by the permit,
- 8.3 inspect any facilities, equipment, practices, or operations regulated by or referenced in the permit, and
- 8.4 sample or monitor substances or parameters to assure compliance with the permit or other applicable requirements.

## **Section 2. Ambient Air Quality Standards and Maximum Allowable Ambient Concentrations**

- 9. General Description.** This permit contains terms and conditions to ensure that allowable emissions from the facility and associated growth will not cause an ambient concentration that exceeds the concentrations established in Table 6 of 18 AAC 50.310(d)(2) at any location that does not or would not meet the ambient air quality standard or maximum allowable ambient concentration.
- 10. Notification Requirement.** The Permittee shall modify and operate the facility in accordance with the application and application supplements listed in Section 11 of this permit. Notwithstanding the regulations set forth in 18 AAC 50.300(h), the Permittee shall notify the Department, in accordance with the following condition, prior to:
- 10.1 installing a source at the facility that is not listed in Section 10 of this permit;
  - 10.2 making a change to a source listed in Section 10 that would cause it to deviate from the description of it provided in Section 10; or
  - 10.3 making a change to the emission characteristics of a source, including waste heat recovery, in a manner that would increase the ambient impact beyond that which the department used when issuing this permit.
- 11. Notification Procedure.** The Permittee shall use the following procedures when notifying the department pursuant to the previous condition:
- 11.1 For changes described by 18 AAC 50.370(a), notify the Department in accordance with 18 AAC 50.370(b). The Permittee may implement the changes in accordance with 18 AAC 50.370(c).
  - 11.2 For all other changes,
    - a. ask the Department if additional ambient impact assessment modeling is warranted for the proposed change;
    - b. within 60 days upon receiving written Department notice that modeling is warranted, prepare and submit to the Department an ambient impact assessment for the specified air contaminant and averaging period; and
    - c. do not make the change until receiving Department concurrence that the change will not interfere with attainment or maintenance of ambient air quality standards and maximum allowable ambient concentrations.

**12. Sulfur Dioxide Requirements.** For all sources listed in Section 10 of this permit, the Permittee shall comply with the following requirements:

- 12.1 The sulfur content of fuel oil burned must not exceed 0.50 percent by weight at any time.
- 12.2 At least once per calendar month, measure and record the percent sulfur content by weight, using any appropriate method listed in ASTM D 396 (or later publications of the same listing). In lieu of directly measuring the fuel sulfur content, the Permittee may use the fuel sulfur content provided by the fuel vendor, provided the sulfur content was determined in accordance with ASTM standards.
- 12.3 Report the sulfur content of fuel oil as set out in the Facility Operating Report required by Condition 35.
- 12.4 Of the six emission sources present (No. 5, No. 6, No. 9, No. 11, No. 12, No. 14), only four may be operated concurrently.
- 12.5 Monitor and record the hours of operation for each source, including the start-up and shut-down times and dates.
- 12.6 Report the hours of operation for each source, including the start-up and shut-down times and dates.
- 12.7 Source No. 5 shall not operate greater than 18,720 kilowatt hours per day.
- 12.8 Monitor and record the daily kilowatt-hours of operation for Source 5.
- 12.9 Report the daily kilowatt-hours of operation for Source 5 as set out in the Facility Operating Report required by Condition 35.

**13. Nitrogen Dioxide Requirements.** The Permittee shall comply with the following requirements for Sources No. 5 and No. 6:

- 13.1 Both units may operate no more than 4,400 unit hours per any consecutive 12-month period.
- 13.2 Monitor and record the hours of operation for Sources No. 5 and No. 6 as set out in Condition 12.5. Calculate the 12-month rolling total hours of operation for each of Sources No. 5 and 6.
- 13.3 Report compliance with Condition 13.1 by providing the monthly and 12-month rolling total hours of operation for Sources 5 and 6 as set out in the Facility Operating Report required by Condition 35.

**14. Ambient Monitoring Requirements.** The Permittee shall comply with the following requirements:

- 14.1 By February 22, 2000, submit an ambient impact modeling assessment that demonstrates the project impacts are less than the pre-construction monitoring threshold for SO<sub>2</sub> of 13 µg/m<sup>3</sup> over a 24-hour averaging period; or
- 14.2 Operate, maintain, and calibrate at least one ambient air contaminant monitoring station to monitor SO<sub>2</sub> as follows:
  - a. The station must be sited in a location for which the Department and Permittee agree would measure the maximum ambient concentration as predicted by the ambient concentration modeling performed by the applicant and the Department.
  - b. Submit to the Department for approval an ambient monitoring plan for Sulfur Dioxide (SO<sub>2</sub>) by the later of:
    - (1) March 22, 2000; or
    - (2) 30 days after the Department notifies the Permittee that the project assessment of Condition 14.1 shows that impacts exceed the threshold listed in Condition 14.1.

Identify the monitoring site and rationale for site selection.

- c. Measure the ambient concentration of SO<sub>2</sub> for at least one year starting no less than 120 days after Department approval of the monitoring plan. Upon completion of the monitoring, the Permittee may request cancellation of monitoring provided the data exhibits compelling evidence that the ambient air standards for SO<sub>2</sub> are being met.
  - d. Operate the station in accordance with the monitoring plan approved under Condition 14.2(b).
  - e. Submit a copy of the quarterly monitoring report within 60 days after the end of each calendar quarter. List all pollutant data collected, system downtime, periods for which collected data do not meet the data validation requirements, and periods for which the data is questionable. List equipment audit results during the quarter.
- 15. Stack Parameter Requirements.** The Permittee shall operate the Sources No. 9, 11, 12, and 14 with the following stack parameters:

- 15.1 Stack heights for Sources No. 9 and 11, engine exhaust shall be no less than 62 feet, and for Sources No. 12 and 14, engine exhaust shall be no less than 50 feet above ground level;
- 15.2 Provide stacks for Sources No. 9, 11, 12, and 14 with:
  - a. sampling ports that comport with 40 CFR 60, Appendix A, Method 1, Section 2.1, and a stack or duct free of cyclonic flow at the port location during applicable test methods and procedures;
  - b. safe sampling platforms;
  - c. safe access to sampling platforms; and
  - d. utilities for emission sampling and testing equipment;
- 15.3 Submit to ADEC within 14 days after completion and no later than August 14, 2000, as-Built engineering drawings and photographs of stack parameters on Sources No. 9, 11, 12, and 14 to ensure compliance with Conditions 15.1 and 15.2.



### **Section 3. Best Available Control Technology (BACT) for Oxides of Nitrogen (NO<sub>x</sub>)**

This section of the permit contains the requirements for NO<sub>x</sub> BACT imposed by this permit action for Sources No. 9, 11, 12, and 14. Source 12 may be operated at a rating of 3,660 kW (designated as 12a) or 4,400 kW (designated as Source 12b).

**16. The Permittee shall comply with the following requirements:**

**16.1 For the 2,865 kW EMD diesel electric generator, Source No. 9,**

- a. Limit NO<sub>x</sub> emissions to no greater than 101 lb/hr, expressed as NO<sub>2</sub>, averaged over the duration of the emission performance test or any three consecutive hours.
- b. Operate Source No. 9 with no less than 2 degrees of fuel injection timing retard (fuel injection at 2 degrees before top dead center) and with a 4-pass aftercooler with separate cooling water supply.
- c. No later than July 31, 2000, conduct source tests for NO<sub>x</sub> to ascertain compliance with the emission limit in Condition 16.1(a) in accordance with the requirements set forth in Section 8 of this permit. Determine the NO<sub>x</sub> emission rate, expressed as NO<sub>2</sub>, using exhaust properties determined by both Method 19 and exhaust gas measurements as set out in Section 8.
- d. No less than once per calendar year after 1999, verify compliance with the degree of fuel injection timing retard required by Condition 16.1(b) by providing the vendor documentation or facility maintenance logs. Submit documents or logs in the Facility Operating Report required by Condition 35.

**16.2 For the 1,500 kW EMD diesel-electric generator, Source No. 11,**

- a. Limit NO<sub>x</sub> emissions to no greater than 61 lb/hr, expressed as NO<sub>2</sub>, averaged over the duration of the emission performance test or any three consecutive hours.
- b. Operate Source No. 11 with no less than 2 degrees of fuel injection timing retard (fuel injection at 2 degrees before top dead center).
- c. No later than July 31, 2000, conduct source tests for NO<sub>x</sub> to ascertain compliance with the emission limit in Condition 16.2(a) in accordance with the requirements set forth in Section 8 of this permit. Determine the NO<sub>x</sub> emission rate, expressed as NO<sub>2</sub>, using exhaust properties determined by both Method 19 and exhaust gas measurements as set out in Section 8.

- d. No less than once per calendar year after 1999, verify compliance with the degree of fuel injection timing retard required by Condition 16.2(b) by providing the vendor documentation or facility maintenance logs. Submit documents or logs in the Facility Operating Report required by Condition 35.

16.3 For the 3,660 kW Caterpillar diesel electric generator, Source No. 12a

- a. Limit NO<sub>x</sub> emissions to no greater than 188 lb/hr, expressed as NO<sub>2</sub>, averaged over the duration of the emission performance test or any three consecutive hours.
- b. Operate Source No. 12a with no less than 2.5 degrees of fuel injection timing retard (fuel injection at 14.5 degrees before top dead center).
- c. No later than July 31, 2000, conduct source tests for NO<sub>x</sub> to ascertain compliance with the emission limit in Condition 16.3(a) in accordance with the requirements set forth in Section 8 of this permit. Determine the NO<sub>x</sub> emission rate, expressed as NO<sub>2</sub>, using exhaust properties determined by both Method 19 and exhaust gas measurements as set out in Section 8.
- d. No less than once per calendar year after 1999, verify compliance with the degree of fuel injection timing retard required by Condition 16.3(b) by providing the vendor documentation or facility maintenance logs. Submit documents or logs in the Facility Operating Report required by Condition 35.

16.4 For the 4,400 kW Caterpillar diesel-electric generator, Source No. 12b

- a. Limit NO<sub>x</sub> emissions to no greater than 203 lb/hr, expressed as NO<sub>2</sub>, averaged over the duration of the emission performance test or any three consecutive hours.
- b. Operate Source 12b with no less than 4 degrees of fuel injection timing retard (fuel injection at 18 degrees before top dead center).
- c. Within 120 days after engine configuration changes to operate Source 12b at 4400 kW, conduct source tests for NO<sub>x</sub> to ascertain compliance with the emission limit in Condition 16.4(a) in accordance with the requirements set forth in Section 8 of this permit. Determine the NO<sub>x</sub> emission rate, expressed as NO<sub>2</sub>, using exhaust properties determined by both Method 19 and exhaust gas measurements as set out in Section 8.

- d. No less than once per calendar year after modifying Source 12b to operate at 4400 kW, verify compliance with the degree of fuel injection timing retard required by Condition 16.4(b) by providing the vendor documentation or facility maintenance logs. Submit documents or logs in the Facility Operating Report required by Condition 35.

16.5 For the 1,875 kW Caterpillar diesel electric generator, Source No. 14

- a. Limit NO<sub>x</sub> emissions to no greater than 43 lb/hr, expressed as NO<sub>2</sub>, averaged over the duration of the emission performance test or any three consecutive hours.
- b. No later than July 31, 2000, conduct source tests for NO<sub>x</sub> to ascertain compliance with the emission limit in Condition 16.4(a) in accordance with the requirements set forth in Section 8 of this permit. Determine the NO<sub>x</sub> emission rate, expressed as NO<sub>2</sub>, using exhaust properties determined by both Method 19 and exhaust gas measurements as set out in Section 8.

**Section 4. Best Available Control Technology (BACT) for Sulfur Dioxide (SO<sub>2</sub>)**

This section of the permit contains the requirements for SO<sub>2</sub> BACT imposed by this permit action for new and modified sources.

**17.** The Permittee shall comply with the following requirements:

17.1 For Sources No. 9, 11, 12a or 12b, and 14,

- a. The sulfur content of fuel oil burned must not exceed 0.50 percent by weight at any time.
- b. Measure and record the sulfur content of a representative sample of all fuels burned in accordance with Condition 12.2.
- c. Report fuel sulfur content as set out in Permit Condition 12.3.

***Section 5. Federal New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAPS)***

- 18.** The requirements set forth in Section 6 of this permit are not delegated to the Department by the U.S. EPA under §111 of the Clean Air Act. This permit does not relieve the Permittee of the responsibility for compliance with these standards as may be required by the U.S. EPA.
- 19.** For reports not otherwise required by Section 6 of this permit, submit copies of all NSPS and NESHAPS reports that the Permittee submits to the U.S. EPA Region 10. The Permittee may submit periodic federal reporting with the Facility Operating Report required by Condition 35.
- 20.** Notify the Department of any U.S. Environmental Protection Agency- (EPA) granted waivers of NSPS or NESHAP emission standards, record keeping, monitoring, performance testing, or reporting requirements within 30 days after the Permittee receives a waiver.

**Section 6. 40 CFR 60, Subpart Kb Standard of Performance for Volatile Organic Liquid Storage Vessels**

- 21. Applicability and designation of affected facility, 40 CFR 60.110b.** The requirements in this section apply to “affected facilities” as defined 40 CFR 60.110b. These include volatile organic liquid storage tanks greater than 40 cubic meters in volume (10,567 gallons) for which construction, reconstruction, or modification commenced after July 23, 1984. Sources identified by the Permittee that are affected facilities include the Diesel Fuel Storage Tanks, 1 and 2.
- 22. Monitoring of operations, 40 CFR 60.116b.**
- 22.1 Pursuant to 40 CFR 60.116b(a) and (b), keep readily accessible records showing the dimension and capacity of each storage tank. Keep these records on-site for the life of each tank.
- 22.2 When storing a fuel oil with a true vapor pressure equal to or greater than 3.5 kPa, maintain a record of the Volatile Organic Liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period pursuant to 40 CFR 60.110(b)(c).

## **Section 7. State Implementation Plan Emission Standards**

### **23. Industrial Processes and Fuel-Burning Equipment, Sources Nos. 5, 6, 9, 11, 12, 14**

- 23.1 The Permittee shall not cause visible emissions, excluding condensed water vapor, to reduce visibility in the exhaust effluent by more than 20% for a total of three minutes in any one hour.
- 23.2 The Permittee shall not cause particulate matter emissions to exceed 0.05 grains/dscf, corrected to standard conditions averaged over any three-hour period.
- 23.3 The Permittee shall not cause sulfur compound emission, expressed as sulfur dioxide, to exceed 500 ppm average over a period of any three hours.
- 23.4 For fuel burning sources,
  - a. The Permittee shall conduct quarterly source tests on each source that operates greater than 100 unit-hours per calendar quarter to determine the reduction in visibility through the exhaust effluent in accordance with the procedures set out in Section 8 and Section 13 of this permit.
  - b. The Permittee shall conduct a single source tests on each of Sources 9 and 11 to determine particulate matter emissions in accordance with the procedures set out in Section 8 of this permit. The source tests shall be conducted on the date the initial NO<sub>x</sub> BACT source tests are performed as set out in Section 3.

### **24. Air Pollution Prohibited.** The Permittee shall not cause any emission which is injurious to human health or welfare, animal or plant life, or property, or which would unreasonably interfere with the enjoyment of life or property.

- 24.1 Within 24 hours of receiving a complaint that is attributable to emissions from the facility, investigate the complaint and take corrective actions to alleviate or eliminate the cause of the complaint.
- 24.2 Keep records of the date, time, and nature of all complaints received and a summary of each investigation and corrective action undertaken for complaints attributable to emissions from the facility. Upon request of the Department, submit copies of the records.

### **25. Dilution.** The Permittee shall not dilute emissions to comply with this permit. At least once each year, check all ductwork and exhaust systems for leaks. Within seven days of discovery, repair leaks that would appreciably dilute emissions. Keep records of all inspections and repairs performed under this condition and report to the Department if requested.

- 26. Good Air Pollution Control Practice.** At all times, including start-up, shut-down, and malfunction, the Permittee shall, to the extent practicable, maintain and operate all sources including associated air pollution control equipment regulated by this permit in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance practices are being used is based on information available to the Department which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspections of the facility. In addition, the Permittee shall comply with the following limitations.
- 26.1 Develop and provide training at the facility to orient each power plant operator to the applicable terms and conditions of this permit. Maintain a log of the time, date, place, and list of attendees for each training session, and a copy of the materials presented in the training sessions. Report to the Department if requested.
  - 26.2 Develop and implement standard operation and maintenance procedures for each source listed in Section 10 of this permit. Keep a copy of the procedures available at a location within the facility that is readily accessible to operators of the sources and to authorized representatives of the Department.
  - 26.3 Keep a copy of this permit, the State Air Quality Control Regulations, 18 AAC 50, and Alaska Statutes, AS 46.14, on file at the facility.
- 27.** The Permittee shall obtain permits or permit revisions required by AS 46.14 or 18 AAC 50 before constructing or modifying a source. The Permittee shall not construct, operate, or modify a source in a manner that would result in a violation of applicable emission standards or interfere with the attainment or maintenance of the ambient air quality standards or maximum allowable ambient concentrations. Keep a record of all activities undertaken to construct and modify a source and any permits or approvals obtained to perform such activities. Upon request of the Department, submit copies of the records.



## **Section 8. General Source Testing and Monitoring Requirements**

**28. Reference Test Methods.** The Permittee shall use the following as reference test methods when conducting source testing as requested by the Department and this permit:

- 28.1 Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(a) must be conducted in accordance with the methods and procedures specified in 40 CFR 60.
- 28.2 Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(b) must be conducted in accordance with the methods and procedures specified in 40 CFR 61.
- 28.3 Source testing for emissions of particulate matter, sulfur compounds, nitrogen compounds, carbon monoxide, lead, volatile organic compounds, fluorides, sulfuric acid mist, municipal waste combustor organics, metals, and acid gases must be conducted in accordance with the methods and procedures specified 40 CFR 60, Appendix A.
- 28.4 Source testing for emissions of PM-10 must be conducted in accordance with the procedures specified in 40 CFR 51, Appendix M.
- 28.5 Source testing for the reduction in visibility through the exhaust effluent must be conducted in accordance with the procedures set out in Section 13 of this permit. Visibility source testing is exempt from the requirements listed in Conditions 29 through 31. Except as otherwise directed by the Department, attach visible emission source testing results to the Facility Operating Report required by Condition 35 of the permit.
- 28.6 Source testing for emissions of any contaminant may be determined using an alternative method approved by the Department in accordance with Method 301 in Appendix A to 40 CFR 63.

**29. Test Plans.** Within 60 days after receiving a request and at least 30 days before the scheduled date of any tests, the Permittee shall submit a complete plan for conducting the source tests to the Department for approval. The plan must address the methods and procedures to be used for sampling, testing, and quality assurance, and the operational conditions under which the tests will be performed and documented.

**30. Test Notification.** The Permittee shall give the Department written notice of all source tests at least 10 days before conducting the tests.

- 31. Test Reports.** Within 45 days after completion of a set of tests, the Permittee shall submit two copies of the results, to the extent practical, in the format set out in the *Source Test Report Outline* of Volume III, Section IV.3, of the State Air Quality Control Plan, adopted by reference in 18 AAC 50.030(8). The Permittee shall certify the results as set out in Condition 41 of this permit.
- 32. Operating Conditions.** Unless otherwise specified by an applicable requirement or test method, the Permittee shall conduct source testing:
- 32.1 At a point or points that characterize the actual discharge into the ambient air; and
- 32.2 At the maximum rated burning or operating capacity of the source or another rate determined by the Department to characterize the actual discharge into the ambient air.
- 33. Excess Air Requirements.** To determine compliance with this permit, standard exhaust gas volumes must only include the volume of gases formed from the theoretical combustion of fuel, plus the excess air volume normal for the specific source type, corrected to standard conditions (dry gas at 70° F and an absolute pressure of 760 millimeters of mercury).
- 34. Continuous Monitoring Systems.** If required by terms and conditions of this permit, install, calibrate, conduct applicable continuous monitoring system performance tests listed in 40 CFR 60, Appendix B, effective July 1, 1997, and certify test results; operate; and maintain air contaminant emissions and process monitoring equipment on the sources as described herein and in documents provided by the Permittee, listed in Section 11. Submit monitoring equipment siting, operating, maintenance plans, and procedures for approval by the Department.

For continuous emission monitoring systems, comply with each applicable monitoring system requirement, as listed in 40 CFR 60.13, 60.19, 40 CFR 60, Appendix A, Method 19, Appendix B, Performance Specifications 2 and 6, and Appendix F, and the *EPA Quality Assurance Handbook For Air Pollution Measurements Systems*, EPA/600 R094/038b, effective July 1, 1997. Attach to the Facility Operating Report required by Condition 35: 1) a copy of each quarterly continuous emission monitoring system data assessment report for Quality Assurance Procedures conducted in accordance with 40 CFR 60, Appendix F; and 2) a copy of each quarterly monitoring systems performance report in accordance with 40 CFR 60.7.

## ***Section 9. General Recordkeeping and Reporting Requirements***

- 35. Facility Operating Report.** The Permittee shall submit to the Department an original and two copies of a quarterly Facility Operating Report, as described in Section 14 of this permit by January 30<sup>th</sup>, April 30<sup>th</sup>, July 30<sup>th</sup>, and October 30<sup>th</sup> each year for operations during the preceding calendar quarter. In addition to copies of the specific records required to be submitted by this permit, the report must include a listing of all deviations from the requirements of this permit that occurred during the reporting period. For each deviation, the report must include a discussion of the basis for the deviation, including all of the monitoring recording required by this permit that are associated with the deviation.
- 36. Excess Emission Reports.** The Permittee shall report all emissions or operations that exceed or deviate from the requirements of this permit or that present a potential threat to human health or safety as soon as possible, but no later than 48 hours, after discovery. Report in accordance with Section 12 of this permit.
- 37. BACT Reanalysis.** For sources regulated under Section 3 of this permit, the Permittee shall notify the Department if the Permittee
- 37.1 has not commenced substantial and continuous construction activity within 18 months after the permit was issued; or
  - 37.2 ceases substantial or continuous construction activity for 18 or more months before the approved construction or modification is complete.
- 38. Submittals.** Unless otherwise directed by the Department or this permit, the Permittee shall submit two copies of test plans, reports, certifications, notifications, and other information to the Alaska Department of Environmental Conservation, Air Permits Program, 610 University Ave., Fairbanks, AK 99709-3643, Attn: Compliance Technician.
- 39. Information Requests.** The Permittee shall furnish to the Department any information the Department requests in writing to determine whether cause exists to modify, revoke and reissue, or terminate the permit, or to determine compliance with the permit. Upon request, the Permittee shall furnish to the Department copies of records required to be kept by this permit. The Department, in its discretion, will require the Permittee to furnish copies of those records directly to the federal administrator.
- 40. Recordkeeping Requirements.** The Permittee shall keep records required by this permit for at least five years after the date of collection, including
- 40.1 Copies of all reports submitted pursuant to Conditions 35 and 36 of this permit.
  - 40.2 Records consistent with any recordkeeping requirements set out in the applicable provisions of 40 CFR 60, Subpart A.

40.3 Records of all monitoring required by this permit, and information about the monitoring including:

- a. calibration and maintenance records, original strip chart or computer-based recordings;
- b. sampling dates and the times of sampling or measurement;
- c. the operating conditions that existed at the time of sampling or measurement;
- d. the date analyses were performed;
- e. the location where samples were taken;
- f. the company or entity that performed the sampling and analyses;
- g. the analytical techniques or methods used in the sampling and analysis; and
- h. the results of the analyses.

**41. Certification.** The Permittee shall certify all reports, compliance certifications, or other documents submitted to the Department under the permit as required by 18 AAC 50.205. Except for the reports submitted pursuant to Condition 36, all reports must be certified upon submittal. The Permittee may delay certification of the reports submitted pursuant to Condition 36 if the reports are certified and submitted with a Facility Operating Report required by Condition 35.

## Section 10. Permitted Source Inventory

The Permittee is authorized under this permit to operate the following stationary emission sources. The design rating, capacity, or throughput is set out in this exhibit only for the purpose of aiding in the identification of the source. The Permittee must notify the Department as described in Condition 10, prior to selecting other equipment make, models, and size, to determine the applicability of regulatory requirements.

### I. Source Inventory

Source No.	Equipment Use	Description	Maximum Operation (hrs/yr)	Nominal Design Capacity	Fuel Type
<b>Source Group: Generators</b>					
5	Primary Power Generation	Cooper-Bessemer #LS8T diesel electric generator	4,400	1,200 kW	Diesel
6	Primary Power Generation	Fairbanks Morse #38TD8-1/8 diesel electric generator	4,400	1,000 kW	Diesel
9	Primary Power Generation	EMD #20-645F4B diesel electric generator	8,760	2,865 kW	Diesel
11	Primary Power Generation	EMD #12-645E4 diesel electric generator	8,760	1,500 kW	Diesel
12	Primary Power Generation	Caterpillar #3616 diesel electric generator	8,760	12a - 3,660 kW ----- 12b - 4,400 kW	Diesel
14	Primary Power Generation	Caterpillar #3516B-LS diesel electric generator	8,760	1,875 kW	Diesel
Notes: 12a and 12b refer to two possible configurations of a single source. Source 5 is also limited at 18,720 kilowatt hours per day.					

<b>Source Group: Tanks</b>					
1	Diesel Fuel Storage Tank	Tank	N/A	20,000 gallons	Diesel
2	Diesel fuel storage tank	Tank	N/A	20,000 gallons	Diesel

### **Section 11. Permit Application Documentation**

May 15, 1992	Letter to Nome Joint Utility System (NJUS) from ADEC approving an extension for a Air Quality Control Permit application
November 17, 1992	Letter to Envirometrics from N.C. Machinery Co., describing NO <sub>x</sub> emission alterations with timing and temperature changes.
December 7, 1992	Snake River Power Plant Prevention of Significant Deterioration (PSD) Application.
January 19, 1993	Incompleteness letter to NJUS from ADEC regarding December 7, 1992 application submittal.
June 2, 1993	Letter to ADEC from NJUS; response to comments presented in January 19, 1993 ADEC letter.
July 6, 1993	Incompleteness letter to NJUS from ADEC requesting additional information regarding NJUS response to ADEC's January 1993 incompleteness letter.
August 24, 1994	Letter to ADEC from NJUS, including requested substitute pages for the original PSD application.
September 25, 1995	Letter to ADEC from Envirometrics responding to ADEC comments dated July 18, 1995, ADEC letter.
January 15, 1996	Revised Snake River Power Plant PSD Application.
February 10, 1997	Revised Snake River Power Plant PSD Application.
February 10, 1997	Memorandum to Construction Permits Supervisor from Envirometrics; responding to ADEC comments dated May 28, 1996.
April 15, 1997	Letter to ADEC from NJUS, submitting PSD application.
May 14, 1997	Submittal of Coastal Project Questionnaire (CPQ) and Certification Statement from NJUS to ADEC.
August 29, 1997	Memorandum to ADEC from Envirometrics, regarding expense of CO catalysts.
September 16, 1997	Letter to ADEC from NJUS notifying of plan to submit revised PSD application.

**Permit Application Documentation (cont.)**

November 13, 1997	Letter to ADEC from Southeast Management Services regarding the “Proposed Basis for Conducting the Nome Joint Utility’s PSD Application”.
August 14, 1998	Letter to ADEC from NJUS stating status of ambient air quality modeling efforts.
August 10, 1998	Status Report for Completing the Snake River Power Plant PSD Application.
December 20, 1998	Snake River Power Plant PSD Application as Revised 12/98.
December 23, 1998	Letter to the Division of Governmental Coordination from Southeast Management Services submitting a CPQ and copy of PSD permit application.
February 3, 1999	Letter to Commissioner of ADEC from NJUS explaining emergency need to operate a new diesel engine.
February 26, 1999	Incompleteness letter to NJUS from of ADEC regarding the December 1998 submittal of revised PSD application.
March 3, 1999	Letter to NJUS from ADEC responding to a March 1, 1999 telephone conversation where Mr. Stone requires a permit for a new diesel engine.
March 26, 1999	NJUS Responses to ADEC’s February 26, 1999 Completeness Review.
May 13, 1999	Facsimile to Southeast Management Services from ADEC outlining incompleteness issues with February 1999 PSD application revision.
May 19, 1999	Letter to ADEC from Southeast Management Services responding to May 13, 1999 facsimile requesting information.
May 28, 1999	Progress report to NJUS from ADEC regarding PSD application completeness.
June 7, 1999	Letter to ADEC from NJUS acknowledging receipt of a May 28, 1999 progress report.
June 10, 1999	Letter to ADEC from Southeast Management Services addressing May 13, 1999 completeness issues.

**Permit Application Documentation (cont.)**

June 21, 1999	Letter ADEC from NJUS inquiring about status of compliance order by consent.
June 23, 1999	Incompleteness letter to NJUS from ADEC regarding receipt of supplemental information.
July 13, 1999	Letter to ADEC from NJUS notarizing June 10 and July 9, 1999 letters.
August 30, 1999	Letter to ADEC from EPA regarding compliance order by consent.
August 30, 1999	Letter to NJUS from EPA requesting information on facility's compliance status.
August 31, 1999	Letter to ADEC from Southeast Management Services' response to ADEC's June 23, 1999 request for information.
August 31, 1999	Letter to ADEC from NJUS certifying August 25, 1999 submission from Southeast Management Services.
September 4, 1999	Letter to ADEC from NJUS regarding status of compliance order by consent.
October 7, 1999	ADEC issued preliminary permit for the NJUS Snake River Power Plant.
November 2, 1999	Letter to ADEC from NJUS submitting comments on the preliminary permit decision.
November 9, 1999	Letter to ADEC from the Alaska Rural Electric Cooperative Association submitting comments on the NJUS preliminary permit.
November 9, 1999	Letter to ADEC from EPA submitting comments on the NJUS preliminary permit decision.
November 29, 1999	Letter to ADEC from NJUS clarifying comments on preliminary permit.
December 1, 1999	Letter to ADEC from NJUS submitting comments on the COBC.
December 10, 1999	Letter to ADEC from NJUS clarifying comments on preliminary permit.



## Section 12. Excess Emission Notification Form

Submit to: Facsimile: (907) 269-7508 Telephone: (907) 269-8888

Email: [airreports@envircon.state.ak.us](mailto:airreports@envircon.state.ak.us)

Company Name	Facility Name	Permit Number	
<b>1. Event Information (Use 24-hour clock):</b>			
	<b>End Time:</b>	<b>Start Time:</b>	<b>Duration (hr:min):</b>
Date: _____	_____:	_____:	_____:
Date: _____	_____:	_____:	_____:
<b>Total:</b>			_____:

**2. Cause of Event (Check all that apply):**

<input type="checkbox"/> START UP	<input type="checkbox"/> UPSET CONDITION	<input type="checkbox"/> CONTROL EQUIPMENT
<input type="checkbox"/> SHUT DOWN	<input type="checkbox"/> SCHEDULED MAINTENANCE	<input type="checkbox"/> OTHER _____

*Provide a detailed description of what happened. Attach additional sheets as necessary.*

**3. Sources Involved:**

*Identify each Emission Source involved in the event, using the same identification number and name as in the Permit. List any Control Device or Monitoring System affected by the event. Attach additional sheets as necessary.*

Source ID No.	Source Name	Description	Control Device
_____	_____	_____	_____
_____	_____	_____	_____

**4. Emission Standard Exceeded:**

*Identify each Emission Standard and Permit Condition exceeded during the event. Describe in detail, the extent to which each Standard or Condition was exceeded. List ALL known or suspected injuries or health impacts. Attach additional sheets as necessary.*

Standard or Condition	Limit	Exceedance
_____	_____	_____
_____	_____	_____

**5. Emission Reduction:**

*Describe in detail, ALL of the measures taken to minimize and/or control emissions during the event. Attach additional sheets as necessary.*

**6. Corrective Actions:**

*Describe in detail, ALL of the corrective actions taken to restore the system to normal operation. Attach additional sheets as necessary.*

Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete.

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

### **Section 13. Visible Emission Evaluation Procedures**

An observer qualified according to 40 CFR 60, Method 9, shall use the following procedures to determine the reduction of visibility through the exhaust effluent.

**Position.** The qualified observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented in the 140° sector to his back. Consistent with maintaining the above requirement, the observer shall, as much as possible, make his observations from a position such that his line of vision is approximately perpendicular to the plume direction and, when observing opacity of emissions from rectangular outlets (e.g., roof monitors, open baghouses, non-circular stacks), approximately perpendicular to the longer axis of the outlet. The observer's line of sight should not include more than one plume at a time when multiple stacks are involved, and in any case the observer should make his observations with his line of sight perpendicular to the longer axis of such a set of multiple stacks (e.g., stub stacks on baghouses).

**Field Records.** The observer shall record the name of the plant, emission location, facility type, observer's name and affiliation, and the date on the Visible Emissions Field Data Sheet. The time, estimated distance to the emission location, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds), and plume background are recorded on the sheet at the time opacity readings are initiated and completed.

**Observations.** Opacity observations shall be made at the point of greatest opacity in that portion of the plume where condensed water vapor is not present. The observer shall not look continuously at the plume, but instead shall observe the plume momentarily at 15-second intervals.

**Attached Steam Plumes.** When condensed water vapor is present within the plume as it emerges from the emission outlet, opacity observations shall be made beyond the point in the plume at which condensed water vapor is no longer visible. The observer shall record the approximate distance from the emission outlet to the point in the plume at which the observations are made.

**Detached Steam Plume.** When water vapor in the plume condenses and becomes visible at a distinct distance from the emission outlet, the opacity of emissions should be evaluated at the emission outlet prior to the condensation of water vapor and the formation of the steam plume.

**Recording Observations.** Opacity observations shall be recorded to the nearest 5 percent at 15-second intervals on the Visible Emissions Observation Record contained in this section. A minimum of 48 observations shall be recorded. Each momentary observation recorded shall be deemed to represent the average opacity of emissions for a 15-second period.

**Data Reduction.** For compliance with a standard set out in Condition 23.1 of this permit, count the number of readings that exceed 20 percent opacity and record this number on the sheet.

## Visible Emissions Field Data Sheet

When doing readings: Maintain a distance of at least 15 feet from the emission point; when possible while still conforming to Method 9, select a position to minimize interference between sources; if interference cannot be avoided between sources, use the least stringent opacity standard that applies to any of the sources involved; and if wet dust suppression is used, read the part of the plume where there are no visible emissions caused by water mist.

Certified Observer \_\_\_\_\_

Company \_\_\_\_\_

Location \_\_\_\_\_

Test No. \_\_\_\_\_ Date \_\_\_\_\_

Source \_\_\_\_\_

Production Rate: \_\_\_\_\_

Hrs. of observation: \_\_\_\_\_

Clock Time	Initial			Final
Observer location				
Distance to discharge				
Direction from discharge				
Height of observer point				
Background description				
Weather conditions				
Wind Direction				
Wind speed				
Ambient Temperature				
Relative humidity				
Sky conditions: (clear, overcast, % clouds, etc.)				
Plume description:				
Color				
Distance visible				
Water droplet plume? (attached or detached?)				
Other information				

Page \_\_\_\_ of \_\_\_\_

A minimum reading is 24, every 15 seconds for a total length of 6 minutes

[illegible]

Observer Signature \_\_\_\_\_

Number of Readings exceeding 20%\_\_\_\_\_

Set Number	Time Start—End	Opacity	
		Sum	Average

#### **Section 14. Facility Operating Report**

Submit to the Department two copies and the original of the Quarterly Facility Operating Report by the 30<sup>th</sup> of January, April, July, and October each year for operation of the previous calendar quarter, as required by Permit Condition 35. This report shall include the following information (all quantities must be reported, even if zero):

1. Facility Identification and Reporting Period – Include the name of the company, facility name, location, permit number, and period of time covered by the report.
2. Conditions 10 and 11 – Notify the Department prior to facility or source changes in accordance with the listed requirements and procedures.
3. Conditions 12.3 and 17.1(c) – Report the sulfur content of fuel oil consumed.
4. Condition 12.6 – Report the hours of operations for each source, including the start-up and shut-down times and dates.
5. Condition 12.9 – Report the daily kilowatt-hours of operation for Source No. 5.
6. Condition 13.3 – Report the monthly and 12-month rolling total hours of operation for Sources 5 and 6.
7. Condition 23.4(a) and 28.5 – Report results of Visible Emission Surveillance.
8. Unless submitted to the Department under a separate cover, attach or include reports as listed below in accordance with the Condition cited below:
  - a. Section 5 – Federal Requirement Reporting; and
  - b. Condition 33 – Certified copies of Excess Emission Reports if not submitted under a separate cover.
9. Conditions 35 and 40 – Certify and submit the Facility Operating Reports to the Department.